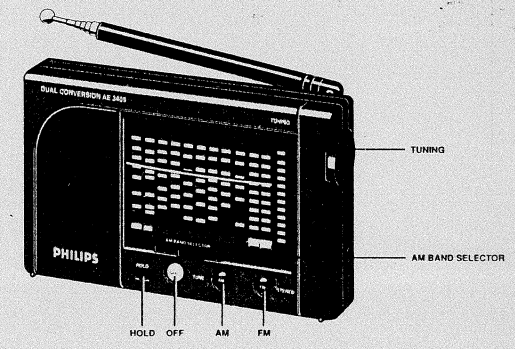
SERV. 32 203

World receiver AE3405/00/20

Service
Service
Service



Service Manual

CONTENTS

Connections and controls	2
Specification	3
Circuit diagram	4-6
Printed circuit board	7-8
Tuner adjustment	9-12
Wiring diagram	11-12
Mechanical partslist	13
Exploded view	14
Electrical partslist	15-16
Handling chip components	17

(GB)
Safety regulations require that the set be restored to its original condition and that parts which are identical with those specified be used.

(NL)
Veiligheidsbepalingen vereisen, dat het apparaat in zijn oorspronkelijke toestand wordt teruggebracht en dat onderdelen, identiek aan de gespecificeerde worden toegepast.

(D)
Bei jeder Reparatur sind die geltenden Sicherheitsvorschriften zu beachten. Der Originalzustand des Geräts darf nicht verändert werden für Reparaturen sind Original-Ersatzteile zu verwenden.

(I)
Le norme di sicurezza esigono che l'apparecchio venga rimesso nelle condizioni originali e che siano utilizzati pezzi di ricambiago identici a quelli specificati.

(F)
Les normes de sécurité exigent que l'appareil soit remis à l'état d'origine et que soient utilisées les pièces de rechange identiques à celles spécifiées.

Documentation Technique Service Dokumentation Documentazione di Servizio Huolte-Ohje Manual de Servicio Manual de Serviço

PHILIPS

"Pour votre sécurité, ces documents doivent être utilisés par des spécialistes agréés, seuls habilités à réparer votre appareil en panne".

Subject to modification
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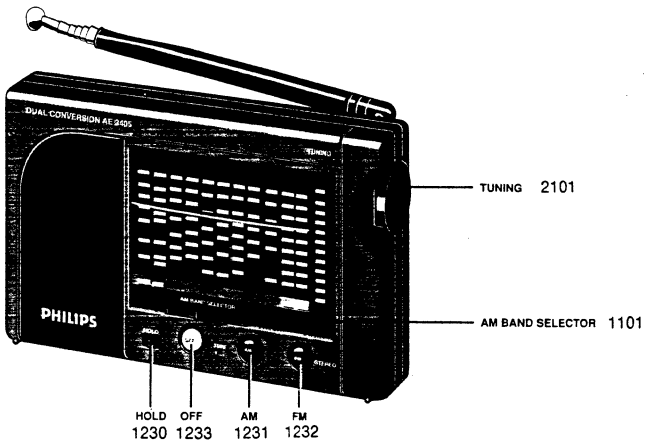
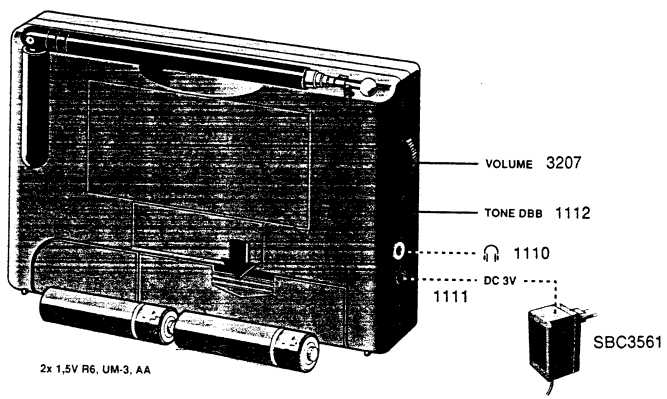
Published by Consumer Electronics

Connections & Controls





(GB) WARNING

All ICs and many other semi-conductors are susceptible to electrostatic discharges (ESD). Careless handling during repair can reduce life drastically.
When repairing, make sure that you are connected with the same potential as the mass of the set via a wrist wrap with resistance. Keep components and tools also at this potential.

(F) ATTENTION

Dous les IC et beaucoup d'autres semi-conducteurs sont sensibles aux décharges statiques (ESD).
La longévité pourrait être considérablement courtée par le fait qu'aucune précaution n'est prise à leur manipulation.
Lors de réparations, s'assurer de bien être relié au même potentiel que la masse de l'appareil et enfiler le bracelet serti d'une résistance de sécurité.
Veiller à ce que les composants ainsi que les outils que l'on utilise soient également à ce potentiel.

ESD

(D) WARNUNG

Alle ICs und viele andere Halbleiter sind empfindlich gegen elektrostatische Entladungen (ESD).
Unsorgfältige Behandlung bei der Reparatur kann die Lebensdauer drastisch vermindern. Sorgen sie dafür, dass Sie im Reparaturfall über ein Pulsarmband mit Widerstand mit dem Massepotential des Gerätes verbunden sind. halten Sie Bauteile und Hilfsmittel ebenfalls auf diesem Potential.

(NL) WAARSCHUWING

Alle IC's en vele andere halfgeleiders zijn gevoelig voor electrostatische ontladingen (ESD).
Onzorgvuldig behandelen tijdens reparatie kan de levensduur drastisch doen verminderen. Zorg ervoor dat u tijdens reparatie via een polsband met weerstand verbonden bent met hetzelfde potentiaal als de massa van het apparaat.
Houd componenten en hulpmiddelen ook op ditzelfde potentiaal.

(I) AVVERTIMENTO

Tutti IC e parecchi semi-conduttori sono sensibili alle scariche statiche (ESD).
La loro longevità potrebbe essere fortemente ridatta in caso di non osservazione della più grande cauzione alla loro manipolazione.
Durante le riparazioni occorre quindi essere collegato allo stesso potenziale che quello della massa dell'apparecchio tramite un braccialetto a resistenza.
Assicurarsi che i componenti e anche gli utensili con quali si lavora siano anche a questo potenziale.

Specification

Wave ranges :	LW	148,5	-	283,5 kHz	(-5 / +15 kHz)
	MW	526,5	-	1606,5 kHz	(-20 / +50 kHz)
	SW1 (49m)	5,950	-	6,200 MHz	(-250 / +150 kHz)
	SW2 (41m)	7,100	-	7,300 MHz	(-250 / +150 kHz)
	SW3 (31m)	9,500	-	9,900 MHz	(-250 / +150 kHz)
	SW4 (25m)	11,650	-	12,050 MHz	(-250 / +150 kHz)
	SW5 (22m)	13,600	-	13,800 MHz	(-250 / +150 kHz)
	SW6 (19m)	15,100	-	15,600 MHz	(-250 / +150 kHz)
	SW7 (16m)	16,550	-	17,900 MHz	(-250 / +150 kHz)
	SW8 (13m)	21,450	-	21,850 MHz	(-250 / +150 kHz)
	SW9 (11m)	25,600	-	26,100 MHz	(-250 / +150 kHz)
	FM	87,5	-	108,0 MHz	(-0,3 / +0,5 MHz)

Sensitivity
(for S/N = 26 dB)

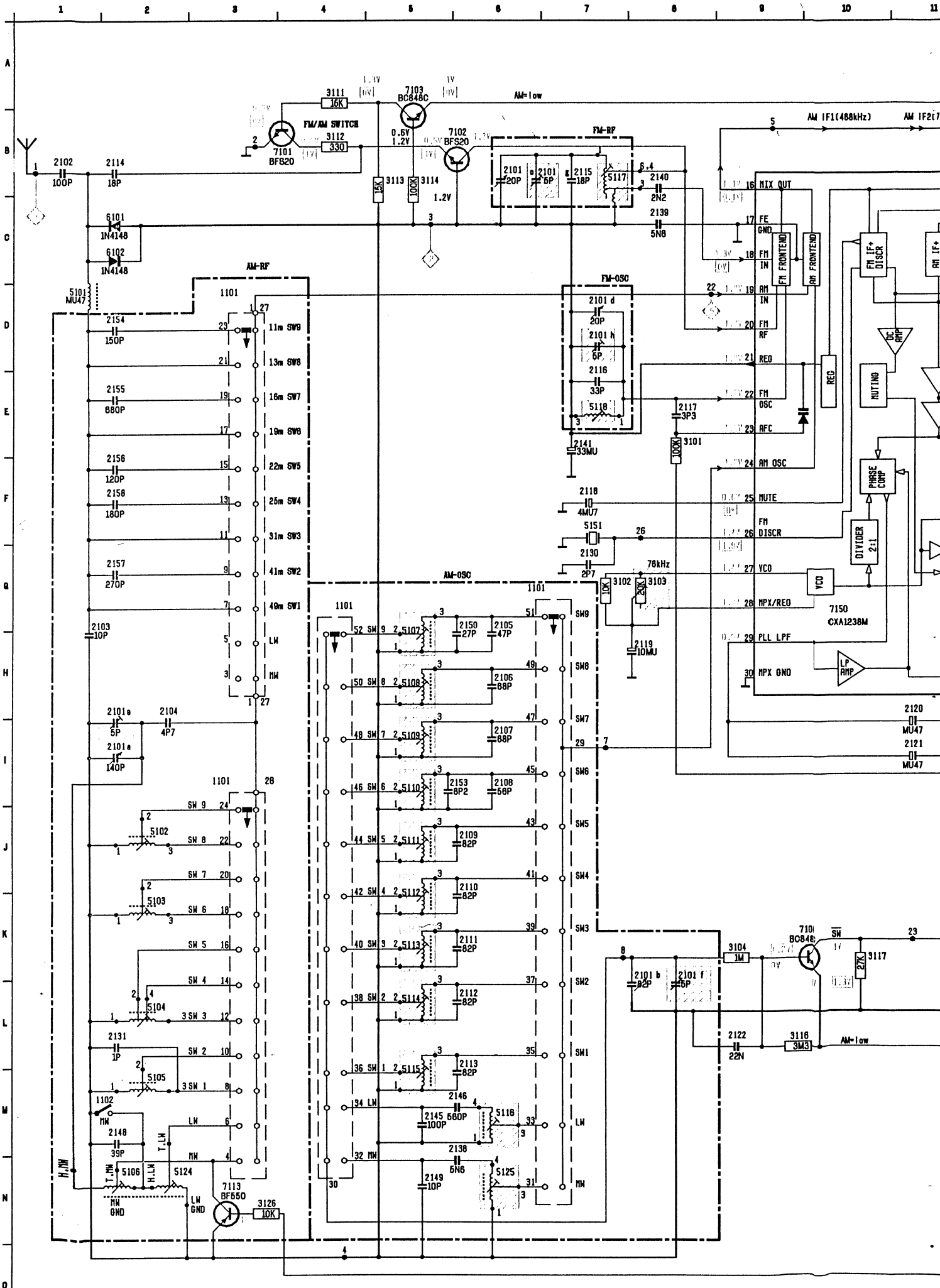
LW :	4,0 mV/m
MW :	3,5 mV/m
SW :	65 uV
FM :	3 uV

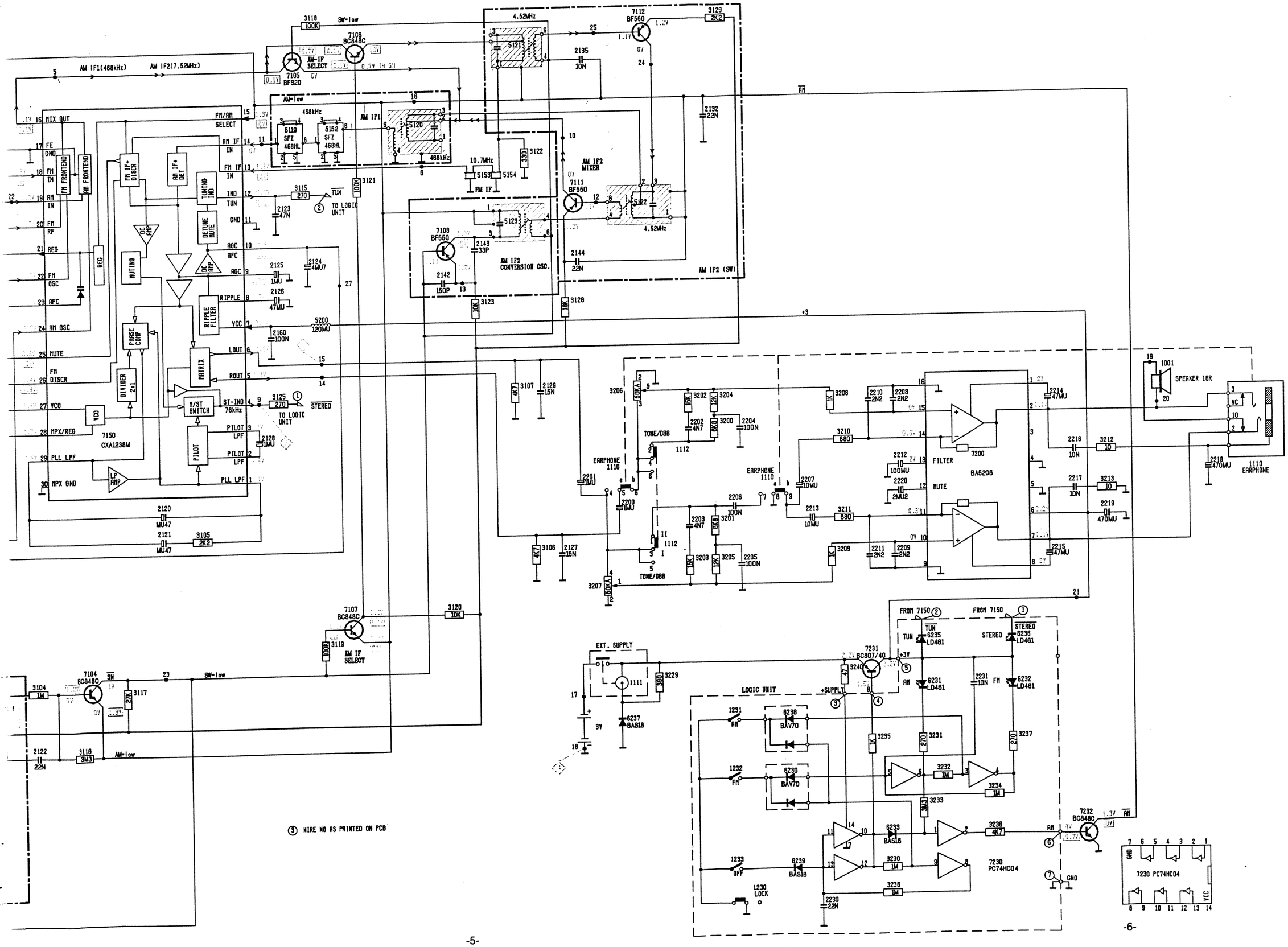
IF

LW :	468 kHz
MW :	468 kHz
SW :	468 kHz + 4,52 MHz (Double conversion)
FM :	10,7 MHz

GENERAL

Battery :	2 x R6 (Battery lifetime > 15 hours)
Power Supply :	SBC 3561
Output power :	130 mW


FM/AM SWITCH
7101 BF820
7102 BFS20
7103 BC848C
AM=low
FM-RF
AM-RF
FM-OSC
AM-OSC
AM IF1(488kHz)
MIX OUT
FE GND
FM IN
AM IN
FM RF
REG
FM OSC
AFC
AM OSC
MUTE
FM DISCR
VCO
MPX/REG
PLL LPF
MPX GND
FM FRONTEND
AM FRONTEND
FM IF+ DISCR
AM IF+
DC AMP
MUTING
PHASE COMP
DIVIDER 2:1
LP AMP
7150 CXA1238M
76kHz
11m SW9
13m SW8
16m SW7
19m SW6
22m SW5
25m SW4
31m SW3
41m SW2
49m SW1
LW
MW
7113 BF550
7104 BC848C



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A	1101	I 3	3204	G19	2101	K 8	3234	M24
	1101	D 3	3205	I19	2101	H 2	3235	L22
	1101	G 4	3206	G18	2101	I 2	3236	N22
	1102	M 1	3207	J18	2101	B 6	3237	L24
	1110	H28	3208	G21	2101	B 6	3238	N24
	1110	H18	3209	I21	2102	B 1	3240	K21
	1111	K18	3210	G21	2103	G 1	5101	D 1
	1112	H19	3211	I21	2104	H 2	5102	J 2
	1230	N20	3212	H25	2105	G 6	5103	K 2
	1231	L20	3213	H25	2106	H 6	5104	L 2
B	1232	M20	3229	K18	2107	I 6	5105	M 2
	1233	N20	3230	N22	2108	I 6	5106	N 2
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	2101	D 7	3232	M23	2110	J 5	5108	H 5
	2101	K 7	3233	M23	2111	K 5	5109	I 5
	2101	K 8	3234	M24	2112	L 5	5110	I 5
	2101	H 2	3235	L22	2113	L 5	5111	J 5
	2101	I 2	3236	N22	2114	B 2	5112	J 5
C	2101	B 6	3237	L24	2115	B 7	5113	K 5
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	2102	B 1	3240	K21	2117	E 8	5115	L 5
	2103	G 1	5101	D 1	2118	F 7	5116	M 6
	2104	H 2	5102	J 2	2119	H 7	5117	B 7
	2105	G 6	5103	K 2	2120	H11	5118	E 7
	2106	H 6	5104	L 2	2121	I11	5119	C13
	2107	I 6	5105	M 2	2122	L 9	5120	C15
D	2108	I 6	5106	N 2	2123	D12	5121	A17
	2109	J 5	5107	G 5	F 2124	E13	5122	D18
	2110	J 5	5108	H 5	2125	E13	5123	D16
	2111	K 5	5109	I 5	2126	E13	5124	N 2
	2112	L 5	5110	I 5	2127	I17	5125	N 6
	2113	L 5	5111	J 5	2128	G12	5151	F 7
	2114	B 2	5112	J 5	2129	G17	5152	C13
	2115	B 7	5113	K 5	2130	G 7	5153	C16
E	2116	E 7	5114	L 5	2131	L 2	5154	C16
	2117	E 8	5115	L 5	2132	B19	5200	F13
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	2127	I17	5125	N 6	2146	M 6	7238	L20
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	2130	G 7	5153	C16	2150	G 5	7102	B 6
	2131	L 2	5154	C16	2153	I 5	7103	A 5
G	2132	B19	5200	F13	2154	D 2	7104	K10
	2135	B17	7101	C 2	2155	E 2	7105	B13
	2138	M 6	7102	C 2	I 2156	F 2	7106	A14
	2139	C 8	7230	M20	2157	G 2	7107	J14
	2140	B 8	7231	K23	2158	F 2	7108	D15
	2141	E 7	7232	K24	2160	F12	7111	D17
	2142	E15	7233	N22	2200	H18	7112	A18
	2143	D16	7235	K23	2201	H17	7113	N 3
	2144	E17	7236	K24	2202	G19	7150	G10
H	2145	M 5	7237	L18	2203	I19	7200	H23
	2146	M 6	7238	L20	J 2204	G20	7230	N23
	2148	M 2	7239	N21	2205	I20	7231	K22
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I	2156	F 2	7106	A14	2211	I22		
	2157	G 2	7107	J14	K 2212	H22		
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	2211	I22			3104	K 9		
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	3102	G 7			3120	J15		
	3103	G 8			3121	C14		
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	3105	I11			3123	E16		
M	3106	I17			3125	O13		
	3107	G16			3126	N 3		
	3111	A 4			O 3128	E17		
	3112	B 4			3129	A19		
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	3116	L 9						
N	3117	K10						
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	3201	I19						

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11	B 1	1233	D 3	2125	B 4	2215	C 2	5105	D 6	5116	D 4	5152	B 3	8101	D 5	8103	D 5		
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1102	C 6	14	D 1	2128	C 4	2219	B 2	5108	C 3	5118	B 5	5154	B 3	8101	D 5	8103	D 5		
1110	C 1	15	B 1	2141	B 4	3103	B 5	5109	C 3	5119	B 4	5200	D 2	8101	C 3	8103	D 5		
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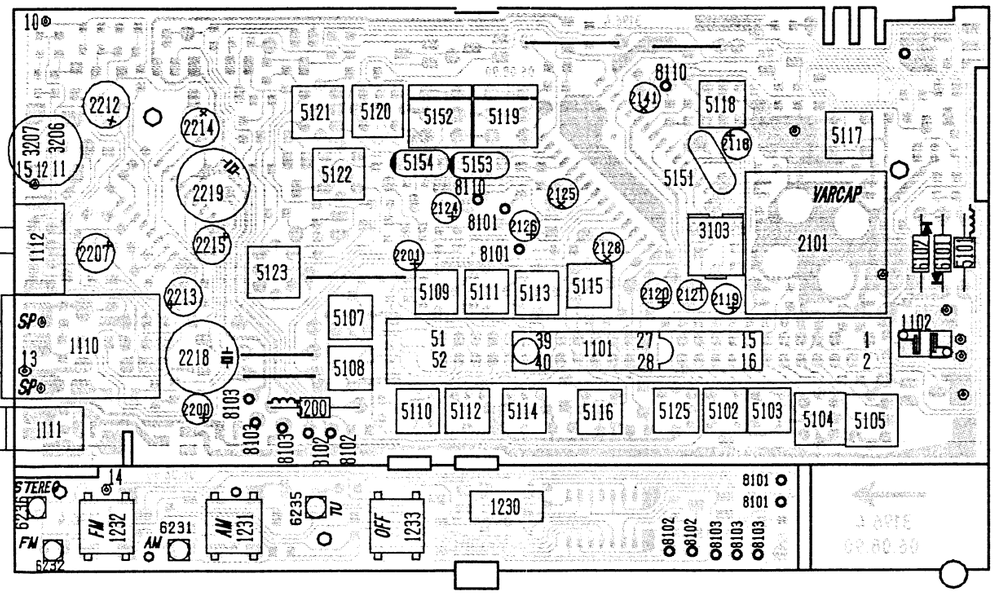
TUNER BOARD / COMPONENTSIDE VIEW / AE3405



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2110	D 4	2139	B 2	2202	A 6	3105	C 3	3126	C 1	3195	B 5	3229	D 6	6238	D 5	7232	A 5		
2111	C 3	2140	B 1	2203	B 6	3106	C 4	3128	C 4	3196	C 3	3230	D 3	6239	D 4				
2112	D 3	2142	B 5	2204	B 6	3107	C 4	3129	B 5	3197	B 3	3231	D 5	7101	B 1				
2113	C 3	2143	C 5	2205	B 6	3111	B 1	3180	B 5	3198	B 3	3232	D 4	7102	B 1				
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2115	B 1	2145	D 3	2208	B 6	3113	B 2	3182	C 6	3200	A 6	3234	D 4	7104	A 5				
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2117	B 2	2148	C 1	2210	B 6	3115	B 3	3184	C 6	3202	A 6	3236	D 3	7106	A 4				
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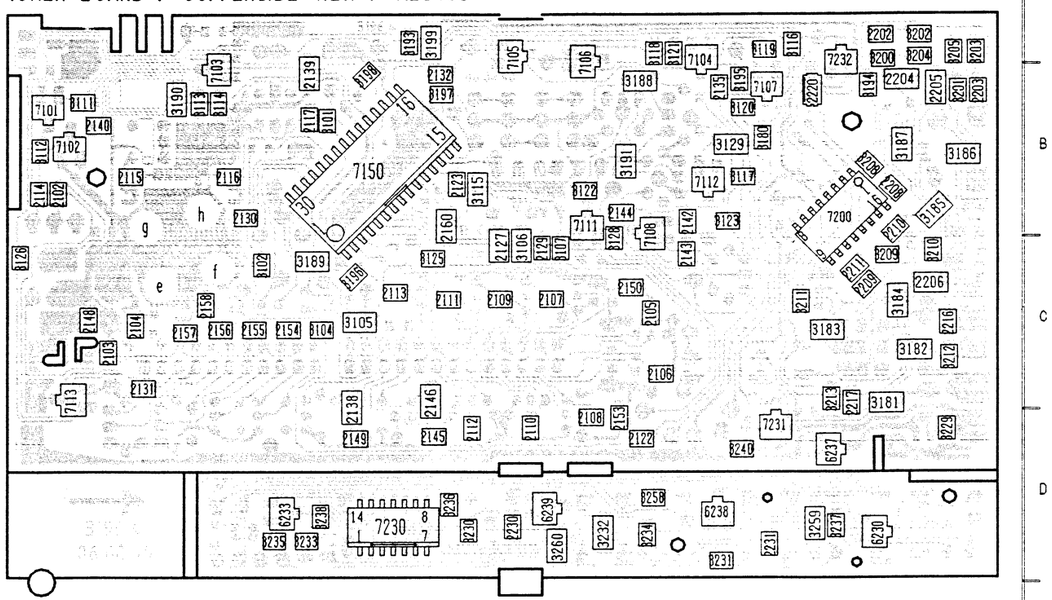
TUNER BOARD / COPPERSIDE VIEW / AE3405



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Tuner adjustment

FM

INPUT	INPUT SIGNAL	SET TUNED TO	OUTPUT	ADJUST	SCOPE/COUNTER
OSC. and RF Adjustment					
see Fig. 1 Sweep 500kHz	108.25MHz 2 - 10 µV	FM VARCO min.	see Fig. 2	2101h OSC 2101g RF	adj. curve to mid. position fo=108.25MHz max.
	87.35MHz 2 - 10 µV	FM VARCO max.		5118 OSC 5117 RF	adj. curve to mid. position fo=87.35MHz max.
VCO Adjustment	Shortcircuit Pin 26 of IC 7150 to GND				
			see Fig. 3	3103	76 kHz +/- 800Hz

AM IF

INPUT	INPUT SIGNAL	WAVE RANGE	OUTPUT	ADJUST	SCOPE
see Fig. 4 Sweep 10kHz	468kHz 0.1 - 1 mV	MW	see Fig. 2	5120	Curve max.
	4.52 MHz 0.1 - 1 mV	SW9		5123	Curve mid. pos.
	4.52 MHz 0.1 - 1 mV	SW9		5122 5121	symmetrical max. f_o

↕ Repeat

AM

INPUT	INPUT SIGNAL	WAVE RANGE	OUTPUT	ADJUST	SCOPE
OSCILLATOR ADJUSTMENT					
see Fig. 4 Sweep 10kHz	1635 kHz 10 - 100 µV	MW VARCO min.	see Fig. 2	2101f	Curve to mid. pos. symmetrical f_o
	515 kHz 10 - 100 µV	MW VARCO max.		5125	
see Fig. 4 Sweep 5kHz	147.5 kHz 10 - 100 µV	LW VARCO max.		5116	
For adjustment of SW oscillator tune set to 735 kHz on MW before and then switch only the wave ranges					
see Fig. 4 Sweep 30kHz 10 - 100 µV	6.055 MHz	SW1	see Fig. 2	5115	Curve to mid. pos. symmetrical f_o
	7.170 MHz	SW2		5114	
	9.665 MHz	SW3		5113	
	11.815 MHz	SW4		5112	
	13.685 MHz	SW5		5111	
	15.300 MHz	SW6		5110	
	17.690 MHz	SW7		5109	
	21.625 MHz	SW8		5108	
	25.825 MHz	SW9		5107	
RF ADJUSTMENT					
⑤ Sweep 30kHz 0.3 - 3 mV/m	200 kHz	LW 200 kHz	see Fig. 2	5124	symmetrical max. f_o
	1500 kHz	MW 1500 kHz		2101e	
	550 kHz	MW 550 kHz		5106	
see Fig. 5 Sweep 30kHz 5 - 50 µV	6.055 MHz	SW1 6.055 MHz	see Fig. 2	5105	symmetrical max. f_o
	9.665 MHz	SW3 9.665 MHz		5104	
	15.300 MHz	SW6 15.300 MHz		5103	
	21.625 MHz	SW8 21.625 MHz		5102	

Fig. 1

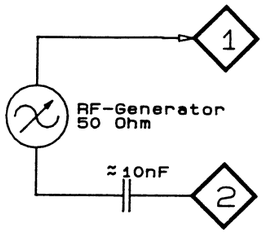


Fig. 2

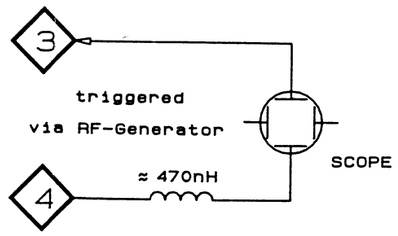


Fig. 3

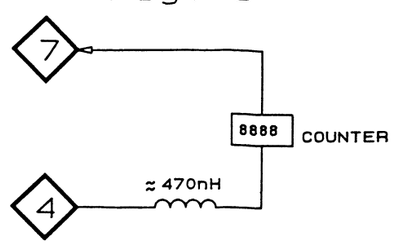


Fig. 4

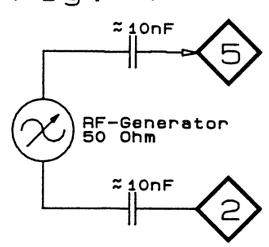
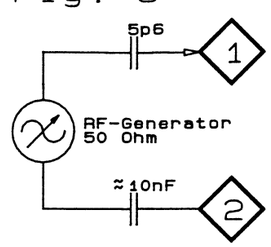
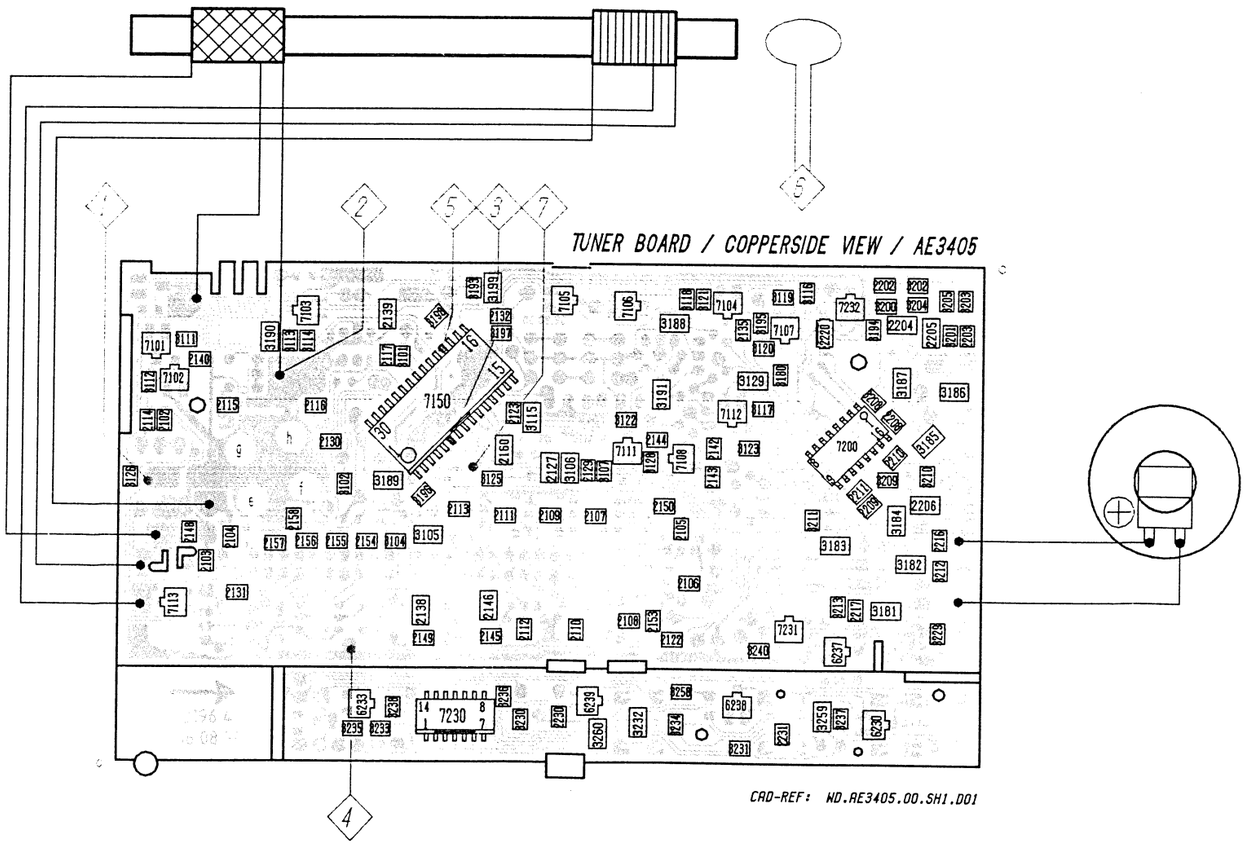
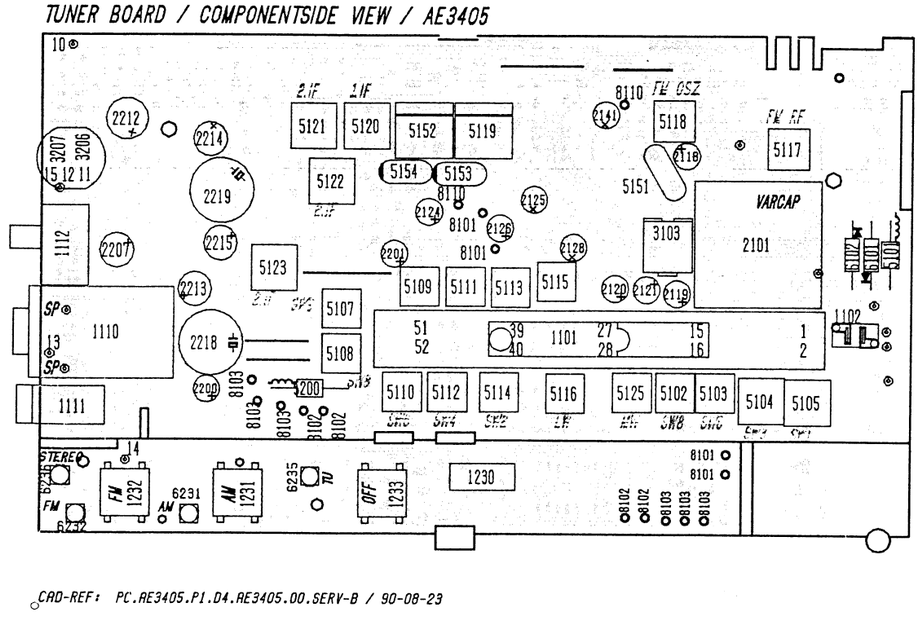


Fig. 5







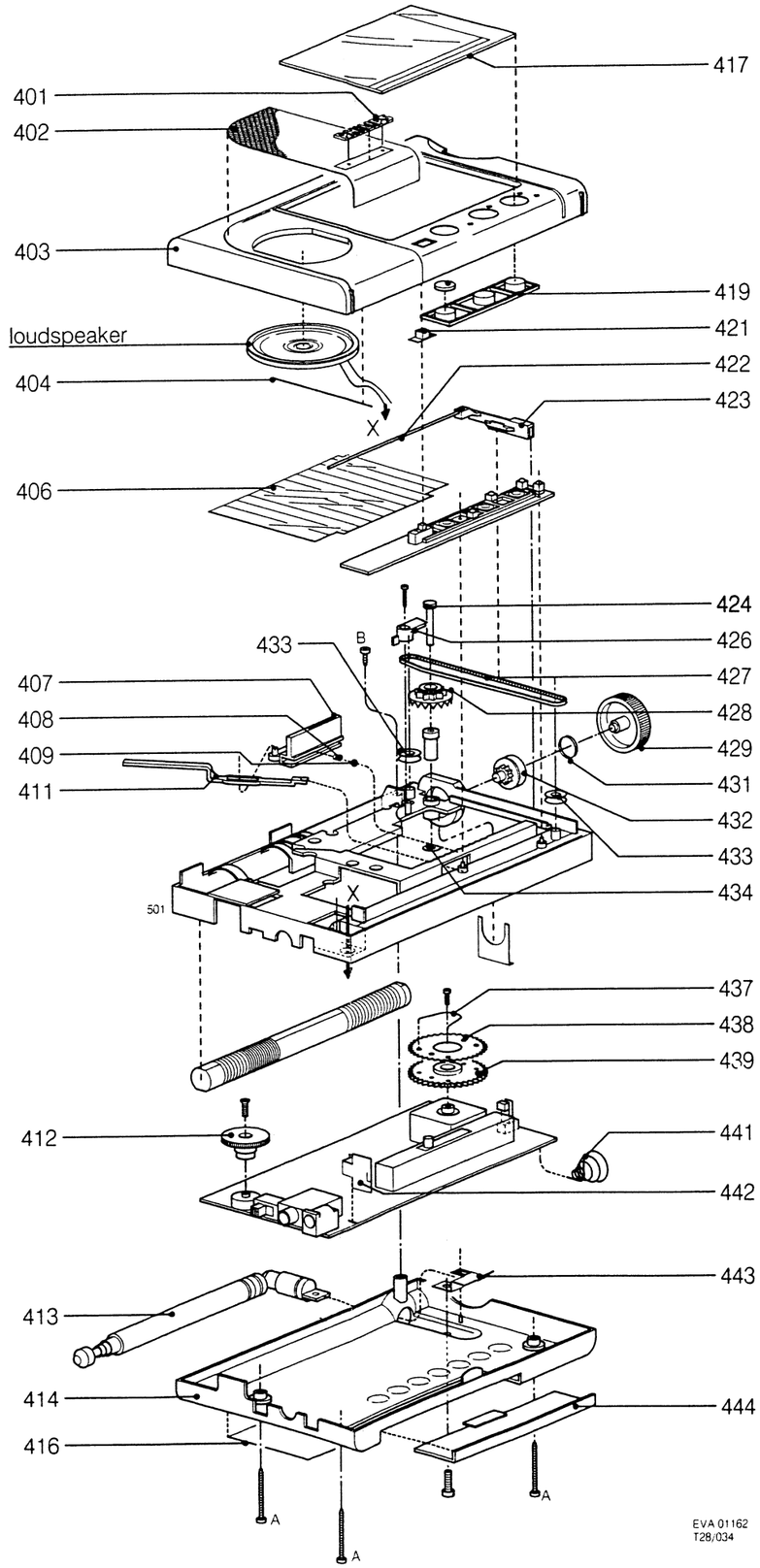
Mechanical Partslist

401	4822 459 11008	Wordmark "PHILIPS"
402	4822 458 20193	LS grill
	4822 445 51042	Fleece (LS)
403	4822 423 51053	Front printed
404	4822 492 70783	LS-spring
406	4822 333 30217	Dial
407	4822 411 61732	Knob, SW
408	4822 492 52217	Compression spring
409	4822 520 40134	Steel ball
411	4822 347 10307	Indicator
412	4822 413 51358	Volume wheel
413	4822 303 30395	Telescopic aerial
414	4822 421 30076	Rear cabinet
416	4822 454 12673	World map (PC foil)
417	4822 450 61636	Window printed
419	4822 404 10832	Key support printed
421	4822 413 41621	Knob printed (HOLD)
422	4822 450 81177	Pointer
423	4822 256 91732	Pointer support
424	4822 535 93161	Spindle
426	4822 404 10833	Guide
427	4822 358 31095	Gear belt
428	4822 528 70703	Idle wheel
429	4822 413 41619	Tuning knob
431	4822 492 70785	Spring, ring
432	4822 528 90799	Pinion
433	4822 528 50322	Pulley
434	4822 532 12023	Washer
437	4822 492 70782	Spring leg
438	4822 413 90088	Varco wheel 2
439	4822 413 90087	Varco wheel 1
441	4822 492 70786	Battery spring -
442	4822 492 70784	Battery spring +
443	4822 492 70787	Contact spring
444	4822 423 41096	Battery lid

Dismantling of set

1) Loosen three screws (A) on the bottom.
   Remove the front part (403). Attention - speaker wires!

2) Loosen one screw (B) in the top right hand corner of the set.
   Remove the bottom (414).



MISCELLANEOUS

	4822 600 70612	Bag (Pouch)	1112	4822 277 21453	SLIDE SWITCH
413	4822 303 30395	Telescopic aerial	1231	4822 276 12997	TACT SWITCH
1101	4822 277 21454	SWITCH,BAND SELECTOR	1232	4822 276 12997	TACT SWITCH
1102	4822 278 90667	LEAF SWITCH	1233	4822 276 12997	TACT SWITCH
1111	4822 267 31264	POWER SOCKET	1250	4822 240 30574	LOUDSPEAKER 0,15W

DIODES

	4822 130 30621	1N4148		5322 130 31928	BAS16
	5322 130 34331	BAV70			

TRANSISTORS

	5322 130 42718	BFS20		4822 130 42131	BF550
	5322 130 42136	BC848C		5322 130 60123	BC807-40

INTEGRATED CIRCUITS

	4822 209 73851	CXA1238M		4822 209 60449	PC74HC04T
	4822 209 63216	BA5206BF			

RESISTORS

3102	4822 051 20103	10k	5%	0,1W	3123	4822 051 20103	10k 5% 0,1W
3103	4822 100 20589	20k POTMETER			3126	4822 051 20103	10k 5% 0,1W
3120	4822 051 20103	10k	5%	0,1W			

CAPACITORS

2101	4822 125 50571	VARCO			2141	4822 124 23484	33 F	20% 4V
2114	5322 122 32965	18pF	5%	50V	2144	4822 122 33555	22nF	10%
2118	4822 124 23481	4,7 F	20%	16V	2200	4822 124 23483	1 F	20% 50V
2119	4822 124 23479	10 F	20%	63V	2201	4822 124 23483	1 F	20% 50V
2120	4822 124 23482	0,47 F	20%	50V	2207	4822 124 23484	33 F	20% 4V
2121	4822 124 23482	0,47 F	20%	50V	2212	4822 124 23486	100 F	20% 4V
2122	4822 122 33555	22nF	10%		2213	4822 124 23484	33 F	20% 4V
2124	4822 124 23481	4,7 F	20%	16V	2214	4822 124 23485	47 F	20% 4V
2125	4822 124 23483	1 F	20%	50V	2215	4822 124 23485	47 F	20% 4V
2126	4822 124 23485	47 F	20%	4V	2218	4822 124 23487	470 F	20% 4V
2128	4822 124 23483	1 F	20%	50V	2219	4822 124 23487	470 F	20% 4V
2132	4822 122 33555	22nF	10%		2230	4822 122 33555	22nF	10%

COILS

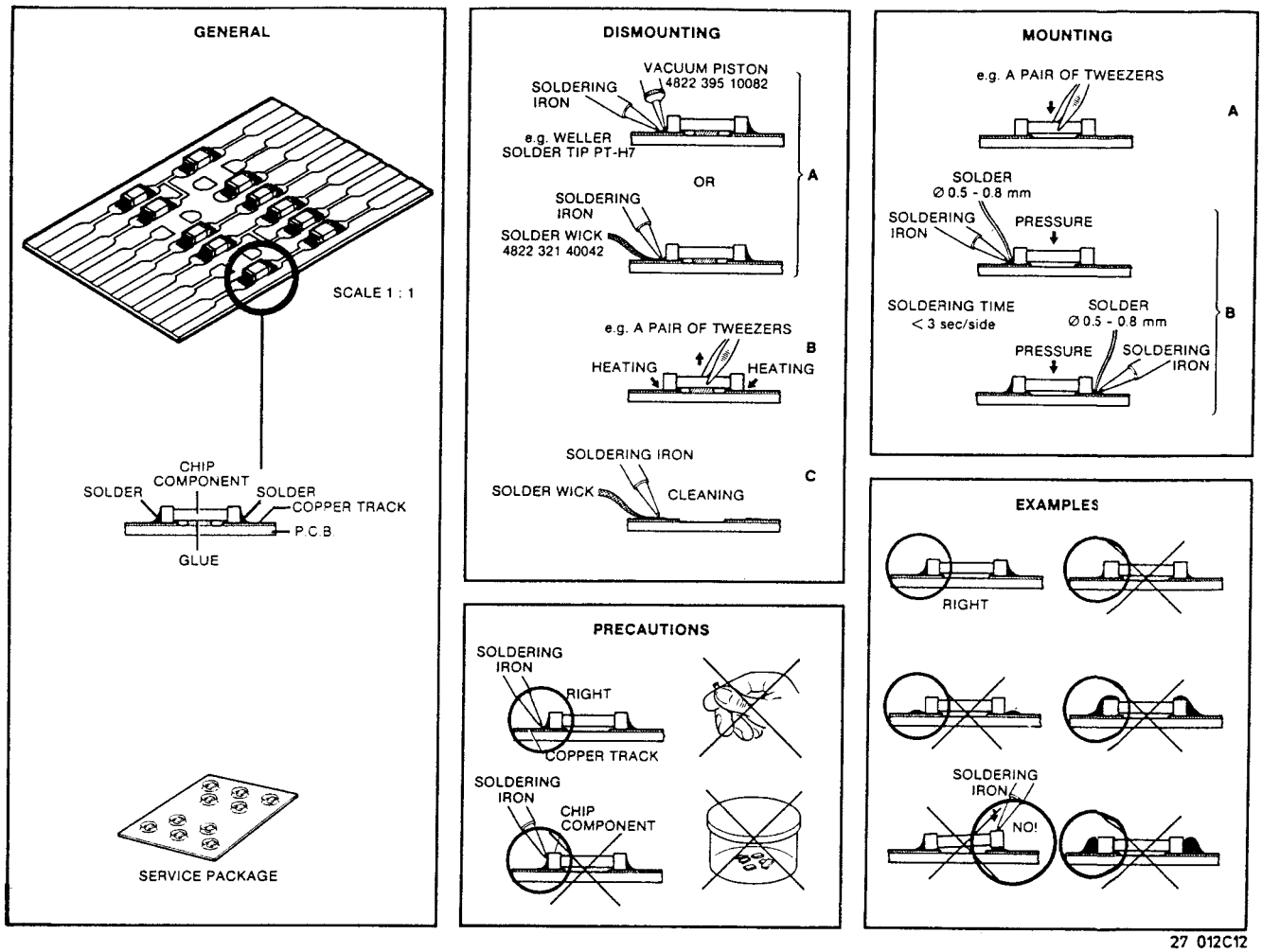
5101	4822 157 60197	0,22 H	5114	4822 157 62792	OSC. COIL SW8
5102	4822 157 62779	ANT. COIL 11+13M	5115	4822 157 62793	OSC. COIL SW9
5103	4822 157 62781	ANT. COIL 16+19M	5116	4822 157 62801	OSC. COIL LW
5104	4822 157 62782	ANT. COIL 21+25+31M	5117	4822 157 62794	ANT. COIL FM
5105	4822 157 62783	ANT. COIL 41+49M	5118	4822 157 62795	OSC. COIL FM
5106	4822 158 60609	FERRITE AERIAL COIL	5119	4822 242 73849	CER. FILTER 468kHz
5107	4822 157 62784	OSC. COIL SW1	5120	4822 157 62796	CER. FILTER 468kHz
5108	4822 157 62785	OSC. COIL SW2	5121	4822 157 62797	FILTER 4,5MHz
5109	4822 157 62786	OSC. COIL SW3	5122	4822 157 62798	FILTER 4,5MHz
5110	4822 157 62787	OSC. COIL SW4	5123	4822 157 62799	OSC. COIL 5MHz
5111	4822 157 62788	OSC. COIL SW5	5125	4822 157 62802	OSC. COIL MW
5112	4822 157 62789	OSC. COIL SW6	5152	4822 242 73849	CER. FILTER 468kHz
5113	4822 157 62791	OSC. COIL SW7	5200	4822 157 62778	120 H

CHIP RESISTORS

3101	4822 051 20104	100k	5%	0,1W	3195	4822 116 90384	JUMPER	
3104	4822 116 80907	1M	5%		3196	4822 116 90384	JUMPER	
3105	4822 051 10222	2k2	2%	0,25W	3197	4822 116 90384	JUMPER	
3106	4822 051 10472	4k7	2%	0,25W	3198	4822 116 90384	JUMPER	
3107	4822 051 20472	4k7	5%	0,1W	3199	4822 051 10008	JUMPER	
3111	4822 051 20153	15k	5%	0,1W	3200	4822 051 20682	6k8	5% 0,1W
3112	4822 051 20331	330R	5%	0,1W	3201	4822 051 20682	6k8	5% 0,1W
3113	4822 051 20153	15k	5%	0,1W	3202	4822 051 20153	15k	5% 0,1W
3114	4822 051 20104	100k	5%	0,1W	3203	4822 051 20153	15k	5% 0,1W
3115	4822 051 10271	270R	2%	0,25W	3204	4822 116 90375	12k	5% 0,1W
3116	4822 051 20335	3M3	5%	0,1W	3205	4822 116 90375	12k	5% 0,1W
3117	4822 051 20273	27k	5%	0,1W	3208	4822 051 20102	1k	5% 0,1W
3118	4822 051 20104	100k	5%	0,1W	3209	4822 051 20102	1k	5% 0,1W
3119	4822 051 20104	100k	5%	0,1W	3210	4822 051 20681	680R	5% 0,06W
3121	4822 051 20104	100k	5%	0,1W	3211	4822 051 20681	680R	5% 0,06W
3122	4822 051 20331	330R	5%	0,1W	3212	4822 051 20109	10R	5% 0,1W
3125	4822 051 20271	270R	5%	0,1W	3213	4822 051 20109	10R	5% 0,1W
3128	4822 051 20183	18k	5%	0,1W	3229	5322 116 90214	390R	5% 0,06W
3129	4822 051 10222	2k2	2%	0,25W	3230	4822 116 80907	1M	5%
3181	4822 051 10008	JUMPER			3231	4822 051 20271	270R	5% 0,1W
3182	4822 051 10008	JUMPER			3232	4822 051 10105	1M	5% 0,25W
3183	4822 051 10008	JUMPER			3233	4822 051 20335	3M3	5% 0,1W
3184	4822 051 10008	JUMPER			3234	4822 116 80907	1M	5%
3185	4822 051 10008	JUMPER			3235	4822 051 20102	1k	5% 0,1W
3186	4822 051 10008	JUMPER			3236	4822 116 80907	1M	5%
3187	4822 051 10008	JUMPER			3237	4822 051 20271	270R	5% 0,1W
3188	4822 051 10008	JUMPER			3238	4822 051 20472	4k7	5% 0,1W
3189	4822 051 10008	JUMPER			3240	4822 051 20479	47R	5% 0,1W
3190	4822 051 10008	JUMPER			3258	4822 116 90384	JUMPER	
3191	4822 051 10008	JUMPER			3259	4822 051 10008	JUMPER	
3193	4822 116 90384	JUMPER			3260	4822 051 10008	JUMPER	
3194	4822 116 90384	JUMPER						

CHIP CAPACITORS

2102	5322 122 32531	100pF	5%	50V	2143	4822 122 33215	33pF	5%	
2103	4822 122 33212	10pF	0,5%		2145	5322 122 32531	100pF	5%	50V
2104	5322 122 32287	4,7pF	5%	50V	2146	4822 122 31771	390pF	5%	50V
2105	4822 126 11153	47pF	5%	63V	2148	5322 122 32966	39pF	5%	50V
2106	4822 126 11154	68pF	5%	63V	2149	4822 122 33212	10pF	0,5%	
2107	4822 126 11154	68pF	5%	63V	2150	4822 126 11152	27pF	5%	63V
2108	4822 126 11199	56pF	5%	50V	2153	4822 126 11201	8,2pF	5%	50V
2109	4822 126 11155	82pF	5%	63V	2154	4822 122 33283	150pF	5%	50V
2110	4822 126 11155	82pF	5%	63V	2155	4822 126 10147	680pF		50V
2111	4822 126 11155	82pF	5%	63V	2156	4822 126 10004	120pF	5%	63V
2112	4822 126 11155	82pF	5%	63V	2157	4822 122 33216	270pF	5%	50V
2113	4822 126 11155	82pF	5%	63V	2158	4822 126 10326	180pF	5%	
2115	4822 122 33213	22pF	5%		2160	4822 122 33236	100nF	10%	
2116	4822 122 33215	33pF	5%		2202	4822 122 33339	4,7nF	10%	50V
2117	5322 122 32286	3,3pF	5%	50V	2203	4822 122 33339	4,7nF	10%	50V
2123	4822 122 33797	47nF	20%	50V	2204	4822 122 33236	100nF	10%	
2127	4822 122 31782	15nF	10%	50V	2205	4822 122 33236	100nF	10%	
2129	4822 122 33543	15nF	10%		2206	4822 122 33236	100nF	10%	
2130	5322 122 31873	2,7pF	0,5%	100V	2208	4822 122 33175	2,2nF	20%	50V
2131	5322 122 32447	1pF	5%	50V	2209	4822 122 33175	2,2nF	20%	50V
2135	4822 122 33177	10nF	20%	50V	2210	4822 122 33175	2,2nF	20%	50V
2138	4822 122 33145	5,6nF	10%	50V	2211	4822 122 33175	2,2nF	20%	50V
2139	4822 122 33145	5,6nF	10%	50V	2216	4822 122 33177	10nF	20%	50V
2140	4822 122 33175	2,2nF	20%	50V	2217	4822 122 33177	10nF	20%	50V
2142	4822 122 33283	150pF	5%	50V	2231	4822 122 33177	10nF	10%	50V


GENERAL
SCALE 1 : 1
CHIP COMPONENT
SOLDER
SOLDER
COPPER TRACK
P.C.B.
GLUE
SERVICE PACKAGE
DISMOUNTING
VACUUM PISTON
4822 395 10082
SOLDERING IRON
e.g. WELLER SOLDER TIP PT-H7
A
OR
SOLDERING IRON
SOLDER WICK
4822 321 40042
e.g. A PAIR OF TWEEZERS
B
HEATING
HEATING
SOLDERING IRON
C
SOLDER WICK
CLEANING
MOUNTING
e.g. A PAIR OF TWEEZERS
A
SOLDER
Ø 0.5 - 0.8 mm
SOLDERING IRON
PRESSURE
SOLDERING TIME
< 3 sec/side
SOLDER
Ø 0.5 - 0.8 mm
B
PRESSURE
SOLDERING IRON
PRECAUTIONS
SOLDERING IRON
RIGHT
COPPER TRACK
SOLDERING IRON
CHIP COMPONENT
PAD
EXAMPLES
RIGHT
SOLDERING IRON
NO!

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